

# Nebraska Department of Natural Resources

## CASE STUDY



### CASE CONCENTRATION

The Nebraska Department of Natural Resources (NDNR), a Cooperating Technical Partner, developed the Large Area Mapping Initiative (LAMI) to map unstudied areas in the State of Nebraska as a means of providing flood hazard data to all users. Coordinated with FEMA, the results of this Initiative provide floodplain managers with a complete set of data to use for the administration of the National Flood Insurance Program (NFIP).

### PROJECT SCOPE

Until five years ago, not all areas within the State of Nebraska had Special Flood Hazard Areas (SFHAs), the areas subject to inundation by the base (1-percent-annual-chance, or 100-year) flood identified. The NDNR had a requirement to provide flood hazard data to its citizens. This requirement, coupled with the need to assist communities in the NFIP, provided the incentive to develop a wide area mapping initiative to provide flood hazard data to all users in the state.

### MAPPING ACTIVITY

Using a geographic information system (GIS), the State developed software to delineate flood hazard areas. The method is largely automated, and the process is very efficient, costing much less than traditional study methods. Over the last 3 years, 19 counties have been mapped using this method.

The delineations are approximate, but a user can input flood stage data to quickly calculate a Base Flood Elevation (BFE) for floodplain development purposes. A user can "point and click" to obtain elevations, and BFEs are determined from the elevation data in minutes.

FEMA and the State are working to produce official FEMA flood maps from these studies. In the meantime, many communities already in the NFIP have adopted the work maps as best available data, and use the BFE information for floodplain management. The State will continue to work with the communities to help them adopt work maps for floodplain management purposes. Even after the floodplains are published as the official, effective FEMA flood hazard, the additional flood elevation data generated by Nebraska's automated process will continue to benefit communities.

### RESULTS

According to Roger Patterson, P.E., Director, NDNR:

"This mapping effort would have been impossible without the strong partnership between the State of Nebraska and the Federal Emergency Management Agency (FEMA), through the Cooperating Technical Partners program. Nebraska is looking forward to identifying flooding hazards across the state, and many more years of partnership with FEMA."



FEMA